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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,198	06/20/2002	Jean-Marie Girault	DN1999093USA	9989

7590

05/17/2004

Howard M Cohn  
Bruce Hendricks Department 823  
The Goodyear Tire & Rubber Company  
1144 East Market Street  
Akron, OH 44316-0001

EXAMINER
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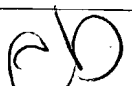
FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>10/088,198</p>	<p><b>Applicant(s)</b></p> <p>GIRAULT ET AL.</p>	
	<p><b>Examiner</b></p> <p>Justin R Fischer</p>	<p><b>Art Unit</b></p> <p>1733</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</p> <p>Paper No(s)/Mail Date <u>03152002</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)</p> <p>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-25, 28-34, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gummiwerke (GB 867,103) in view of Mechanics of Pneumatic Tires (Page 373). As best depicted in Figure 1, Gummiwerke discloses a pneumatic tire construction designed to operate more efficiently during an underinflated or runflat condition, wherein said tire includes a wedge insert or stiffener 3 disposed on an inner surface of each sidewall portion. The stiffener of Gummiwerke includes a plurality of intervening circumferential grooves or cuts 9 that separate said stiffener into distinct segments (reference characters 4-8), wherein the outer surface of a segment and the inner surface of an adjacent segment intersect at a point (segments have the capability of pivoting in an analogous manner to the claimed invention). Gummiwerke, however, is completely silent to the additional features of the tire, particularly the makeup of the carcass. While not expressly depicted by Gummiwerke, the carcass represents a fundamental tire component formed of the primary structural reinforcing elements and one of ordinary skill in the art at the time of the invention would have readily appreciated and expected the tire of Gummiwerke to include a carcass structure. Furthermore, the specific selection of a radial carcass construction would have been obvious to one of

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ordinary skill in the art at the time of the invention since it represents the most common and well known carcass arrangement used in the manufacture of modern day tires, as shown for example by Mechanics (Page 373).

As to claims 22, 23, 28, and 37, Figure 1 of Gummiwerke clearly depicts a saw tooth construction in which the respective surfaces (inner and outer surfaces of the segments) are flat. In this instance, the cuts are not entirely through the thickness of the rubber wedge insert or stiffener.

With respect to claims 24 and 34, the cuts or grooves 9 close during an underinflated or runflat condition (Page 2, Lines 65-70).

Regarding claims 25 and 29-32, while the figures of Gummiwerke appear to depict the segments as being formed of flat surfaces, one of ordinary skill in the art at the time of the invention would have readily appreciated additionally configurations, such as non flat surfaces, for the segments. In particular, the critical feature of Gummiwerke is that the respective surfaces of adjacent segments have the ability to contact each other during an underinflated or runflat condition. This requires the respective surfaces to have shapes that are compatible such that an interlocking relationship is established. One of ordinary skill in the art at the time of the invention would have found it obvious to form any of the segments with convex or concave surfaces as long as the adjacent surface is formed with a complimentary configuration.

3. Claims 26, 27, 35, 36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gummiwerke as applied in claims 21 and 29 above and further in view of Kawabata (JP 3-104710). As noted in the previous paragraph, Gummiwerke is

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directed to a runflat tire construction having a rubber member or stiffener, wherein said stiffener contains a plurality of cuts or grooves that define segments. In describing the tire, Gummiwerke suggests a tubeless tire construction, which is recognized as referring to a tire without an inner tube (Page 2, Lines 9-19). Although Gummiwerke fails to expressly describe an innerliner, it is extremely well known that an innerliner is a fundamental component of tubeless tires and is extensively provided in order to reduce the amount of air in the tire structure (promotes air impermeability). In essence, a tubeless tire contains an innerliner in place of an inner tube to provide the function of limiting the amount of air in the tire structure. One of ordinary skill in the art at the time of the invention would have expected the "tubeless tire" of Gummiwerke to include an innerliner in view of the description as such. Kawabata provides one example of a similar runflat tire construction in which a well-known innerliner is provided. It is noted that the runflat member of Kawabata similarly has grooves or indentations at its axially inner surface- in this instance, the innerliner conforms to the geometry of the runflat member and is existent over the inner and outer surfaces that surround a given indentation. Additionally, one of ordinary skill in the art at the time of the invention would have found it obvious to position the innerliner outward of the runflat member as it is well known in the tire industry to place reinforcing members within the tire cavity. It is emphasized that Gummiwerke only requires that the rubber stiffener is attached to the inside of the sidewalls of a tubeless tire- the rubber stiffeners would provide the same reinforcing capabilities if they were attached to the innerliner or if they were attached to the carcass structure. Absent any conclusive showing of unexpected results, one of

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ordinary skill in the art at the time of the invention would have found it obvious to include an innerliner in the tubeless tire of Gummiwerke and furthermore, would have found it obvious to position the innerliner inwards or outwards of the rubber stiffener as each construction defines well known arrangement in the tire industry.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kamegawa (JP 4-334603) and Welter (US 4,405,007) are directed to pneumatic tire construction in which a rubber portion disposed inward of the carcass structure is formed with a series of peaks and valleys that are similar to the grooves and segments of the claimed invention.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

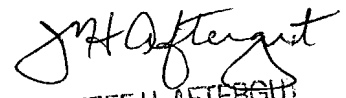
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Justin Fischer

May 12, 2004

  
JEFF H. AFTERGUT  
PRIMARY EXAMINER  
GROUP 1300